1 WE CLAIM:

2   1.   A method of providing automatic speech recognition in a navigation

3 system comprising:

4   determining a current position of a vehicle in which the navigation system is

5 installed;

6   determining whether a distance from the current position of the vehicle to a

7 position associated with a previous build of a speech recognition word list exceeds a

8 threshold; and

9   if the distance exceeds the threshold, forming a new speech recognition word list

10 by adding names of geographic features located in proximity to the current position of the

11 vehicle to a plurality of words that correspond to a collection of geographic features

12 selected without regard to proximity to the current position of the vehicle.

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14   2.   The method of Claim 1 wherein the speech recognition word list contains

15 a subset of all available names for geographic features located in a geographic area

16 represented by a geographic database.

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18   3.   The method of Claim 1 further comprising:

19   determining a location associated with the new speech recognition word list.

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21   4.   The method of Claim 1 wherein the plurality of words that correspond to

22 the collection of geographic features selected without regard to proximity to the current

23 position of the vehicle include popular or important destinations.

24

25   5.   The method of Claim 1 further comprising:

26   continuing to determine the current position of the vehicle as the vehicle travels

27 along roads in a geographic area.

28

1   6.   A method of providing automatic speech recognition in a navigation

2   system comprising:

3   determining a current position of a vehicle in which the navigation system is

4   installed;

5   determining whether a distance from the current position of the vehicle to a

6   position associated with a previous build of a speech recognition word list exceeds a

7   threshold; and

8   if the distance exceeds the threshold, forming a new speech recognition word list

9   during runtime by adding names of geographic features located in proximity to the

10   current position of the vehicle.

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12   7.   The method of Claim 6 wherein the new speech recognition word list also

13   includes names of a predetermined collection of geographic features selected without

14   regard to proximity to the current position of the vehicle.

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16   8.   The method of Claim 7 wherein the predetermined collection of

17   geographic features selected without regard to proximity to the current position of the

18   vehicle include popular or important destinations.

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20   9.   The method of Claim 6 further comprising:

21   continuing to determine the current position of the vehicle as the vehicle travels

22   along roads in a geographic area.

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24   10.   The method of Claim 6 wherein the speech recognition word list contains

25   a subset of all available names for geographic features located in a geographic area

26   represented by a geographic database.

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28   11.   The method of Claim 6 further comprising:

29   determining a location associated with the new speech recognition word list.

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1   12.   In combination:

2   a positioning system that determines a current location of a vehicle;

3   an automatic speech recognition system that matches data representations of

4   words spoken by a user of the vehicle to a word list of data representations of names of

5   geographic features; and

6   a word list builder list program that operates at runtime to form a new word list of

7   data representations of names of geographic features when the current location of the

8   vehicle is more than a threshold distance from a previous location associated with a prior

9   list of data representations of names.

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11   13.   The invention of Claim 12 wherein the word list of data representations of

12 names of geographic features includes data representation of those geographic features

13 that are closest to the current location of the vehicle.

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15   14.   The invention of Claim 13 wherein the word list of data representations of

16 names of geographic features includes data representation of important and popular

17 destinations that are not necessarily close to the current location of the vehicle.

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19   15.   The invention of Claim 12 wherein the new word list contains only a

20 portion of the data representations of named geographic features contained in a

21 geographic database that represents all the geographic features in an area in which the

22 vehicle is traveling.

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24   16.   The invention of Claim 12 further comprising:

25   a geographic database that contains data representations of named geographic

26 features in an area in which the vehicle is traveling; and

27   a spatial name index that orders names of geographic features by proximity to a

28 specified location

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30   17.   The invention of Claim 16 wherein the spatial name index also orders

31 geographic names falling along a vector.

18.   The invention of Claim 16 wherein the spatial name index also orders geographic names located between two points.

19.   In combination:

a positioning system that determines a current location of a vehicle;

an automatic speech recognition system that matches data representations of words spoken by a user of the vehicle to a word list of data representations of spoken names of geographic features, wherein the word list of data representations of spoken names of geographic features includes only a portion of all available data representations of spoken names of geographic features contained in a geographic database;

wherein a first portion of the word list of data representations of spoken names of geographic features includes data representations of spoken names of geographic features selected without regard to proximity to the current location of the vehicle; and

wherein a second portion of the word list of data representations of names of geographic features includes data representations of spoken names of geographic features selected based upon proximity to the current location of the vehicle.

20.   An improvement for a system that provides navigation-related features to a user, wherein the system includes a positioning system component that determines a current location of a user, an automatic speech recognition system component that matches data representations of words spoken by the user to a word list of data representations of spoken names of geographic features, wherein the word list of data representations of spoken names of geographic features includes only a portion of all available data representations of spoken names of geographic features contained in a geographic database, the improvement comprising:

a word list rebuilder program that forms a new word list of data representations of names of geographic features while the vehicle is traveling when the current location of the vehicle is more than a threshold distance from a previous location associated with a prior list of data representations of names.

1   21.   The invention of Claim 20 wherein a first portion of the word list includes

2   data representations of spoken names of geographic features selected without regard to

3   the current location of the vehicle, and wherein a second portion of the word list includes

4   data representations of spoken names of geographic features in proximity to the current

5   location of the vehicle.

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